AFFIRMATIVELY DID, BUT LAST ON TERMS OF THE CRITIQUE, YOU MENTIONED AS AN ELEMENT HIS MEASUREMENT OR HIS DIRECTING PREDICTIONS TO BE MADE AT 30 FEET IN THE AIR, RATHER THAN AT LOWER HEIGHT WHERE HOUSEHOLD ANTENNAS MIGHT BE LOCATED, IS THAT CORRECT?

A. YES.

Q. CAN YOU BE CERTAIN HOW MUCH OF A CORRECTION OR HOW MUCH OF AN ERROR THAT WOULD INTRODUCE IN THE LONGLEY-RICE MODEL AT ANY PARTICULAR LOCATION?

A. I CANNOT.

Q. OKAY.

A. NOW, I'M SORRY, I THINK I -- I THINK WOULD YOU REPEAT THE QUESTION?

Q. CAN ONE APPLY A CORRECTION FACTOR TO A 30-FOOT LONGLEY-RICE MODEL PREDICTION TO GET AN ACCURATE SIGNAL STRENGTH AT THE LOWER ALTITUDE WHERE THE ANTENNA IS ACTUALLY LOCATED AT ANY PARTICULAR LOCATION?

A. ANTENNA HEIGHT IS A PARAMETER THAT ONE SPECIFIES TO THE PROGRAM. SO THE ANSWER IS, YES, YOU CAN.

Q. BUT YOU HAVE TO RERUN THE PROGRAM?

A. YOU DO, YES.

Q. OKAY.

MR. OLSON: YOUR HONOR, BY MY CALCULATION, MR. DEUTSCH IS ABOUT AT THE END OF --

THE COURT: I CAN READ A CLOCK. THANK YOU,

Q. AND DID YOU THEN PREPARE A FURTHER MAP BY CHANGING THE LOCATIONAL PROBABILITY TO 97 PERCENT, THE ANTENNA HEIGHT OF THE RECEIVING ANTENNA TO 20 FEET, AND BY INTRODUCING THE IMPROVEMENTS TO THE MODEL THAT THE BUILDING AND VEGETATION MORPHOLOGY MODULE OF YOURS PERMITS?

A. I DID.

Q. I WOULD LIKE TO SHOW YOU EXHIBIT NUMBER 652. IS THAT THE RESULT?

(DEFENDANTS' EXHIBIT NUMBER 652 WAS MARKED FOR IDENTIFICATION.)

A. IT IS.

MR. DEUTSCH: I WOULD LIKE TO OFFER BOTH OF THESE MAPS INTO EVIDENCE, YOUR HONOR.

MR. OLSON: NO OBJECTION, YOUR HONOR.

THE COURT: THEY WILL BE ADMITTED INTO EVIDENCE, 652 AND 653.

(DEFENDANTS' EXHIBIT NUMBERS 652 AND 653 WERE ADMITTED INTO EVIDENCE.)

BY MR. DEUTSCH:

Q. NOW, JUST SO WE UNDERSTAND ABSOLUTELY, THE AREA WITHIN THE RED ON THOSE MAPS, DO I UNDERSTAND CORRECTLY, IS THE AREA WHERE THE MODEL IS MAKING AN AFFIRMATIVE PREDICTION ABOUT SIGNAL STRENGTH?

A. I'M GOING TO ANSWER YOU IN VERY CAREFUL TERMS. THOSE MAPS ARE ACTUALLY AN ENORMOUS COLLECTION OF INDIVIDUAL

PREDICTIONS. SO IN THE COMPOSITE, THEY APPEAR TO BE DEPICTING AN AREA; BUT JUST AS MR. COHEN DID, I HAVE LITTLE DOTS FOR EACH INDIVIDUAL LITTLE CELL, AS YOU CALLED IT.

Q. OKAY. WHAT DO YOU CONCLUDE, BASED UPON YOUR COMPARISON OF THE TWO MAPS GENERATED FOR THE VERY SAME STATION BY MODIFYING THE INPUT PARAMETERS IN THE PROBABILISTIC CALCULATION?

A. I BELIEVE THAT MY DEPICTION IS AN ENORMOUS STEP IN THE CORRECT DIRECTION.

AND INTERESTINGLY ENOUGH, I DO LIVE AT 4900 NORTH 16TH STREET IN A DIFFICULT RECEPTION AREA. AND LO AND BEHOLD, THAT LITTLE AREA SHOWS UP ON THE LEFT-HAND MAP UP THERE.

THE COURT: WHAT DO YOU MEAN "CORRECT DIRECTION"?

THE WITNESS: I WOULD NOT STATE THAT I AM ABSOLUTELY CORRECT, THAT EVERYTHING I HAVE DONE IS THE ONLY RIGHT WAY. I, I FEEL THAT MY MAPS ARE PROBABLY AS ACCURATE A PREDICTION OF THE REALITY AS ANYONE IN THIS PROPAGATION OR SIGNAL PREDICTION BUSINESS CAN DO. BUT I'M NOT ASSERTING THAT THEY'RE PERFECT; THEY ARE THE BEST THAT ANYONE CAN DO.

THE COURT: THE BEST REASONED CONCLUSION YOU CAN REACH BASED UPON ALL THAT YOU KNOW IN YOUR EXPERIENCE.

THE WITNESS: YES, MA'AM.

THE COURT: EXCUSE ME.

THE WITNESS: YES, YOUR HONOR.

(DISCUSSION HAD OFF THE RECORD.)

THE COURT: ALL RIGHT. CONTINUE NOW, MR. DEUTSCH.

BY MR. DEUTSCH:

Q. IF YOU WERE TO PREPARE SIMILAR MAPS TO EXHIBIT 652 FOR OTHER CITIES IN WASHINGTON AND OTHER STATIONS IN WASHINGTON CHANNEL 5, WOULD YOU EXPECT SIMILAR OR ANALOGOUS RESULTS OR WOULD YOU EXPECT DIFFERENT RESULTS, UNDERSTANDING THAT WE ARE TALKING QUALITATIVELY, OBVIOUSLY. THE MAP CLEARLY WON'T HAVE EXACTLY --

A. WHEN COMPARED WITH EQUIVALENT MAPS DONE BY MR. COHEN?

Q. CORRECT.

A. YES. THE RESULTS OR THE DIFFERENCES WOULD BE EVEN MORE DRAMATIC FOR THE HIGH V.H.F., AND PARTICULARLY DRAMATIC FOR THE U.H.F. STATIONS.

Q. SO IF ANYTHING, THIS IS AN UNDERSTATEMENT, IN TERMS OF THE AVERAGE OR TYPICAL STATION, AS OPPOSED TO AN OVERSTATEMENT OF THE EFFECT?

A. I'M HAVING SOME TROUBLE WITH "UNDERSTATEMENT" AND "AVERAGE." IT IS -- CHANNEL 5 IN WASHINGTON WAS CHOSEN AS BEING ILLUSTRATIVE OF A LOT OF DIFFERENT TYPES OF TERRAIN, MOUNTAINS, FLAT LANDS, CHESAPEAKE BAY, AND SORT OF MIDDLE OF THE ROAD. I HOPE I'M RESPONDING TO YOUR QUESTION.

Q. OKAY.

MR. DEUTSCH: I HAVE NO FURTHER QUESTIONS OF THE WITNESS.

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF FLORIDA

CBS, INC.; FOX BROADCASTING CO.; GROUP W/CBS TELEVISION STATIONS PARTNERS; CBS TELEVISION AFFILIATES ASSOCIATION; POST-NEWSWEEK STATIONS FLORIDA, INC.; KPAX COMMUNICATIONS, INC.; LWWI BROADCASTING, INC.; AND RETLAW ENTERPRISES, INC., Plaintiffs, v. PRIMETIME 24 JOINT VENTURE, Defendant.	Civil Action No. 96-3650-CIV-NESBITT Magistrate Judge Johnson (Order of Reference March 18, 1997)

NOTICE OF FILING AFFIDAVIT OF RICHARD L. BIBY IN SUPPORT OF DEFENDANT PRIMETIME 24'S MOTION FOR CLARIFICATION OF "ORDER AFFIRMING IN PART AND REVERSING IN PART MAGISTRATE JUDGE JOHNSON'S REPORT AND RECOMMENDATION," AND REQUEST FOR HEARING PRIOR TO THE ENTRY OF ANY PRELIMINARY INJUNCTION

PLEASE TAKE NOTICE that defendant PrimeTime 24 Joint Venture ("PrimeTime 24") has filed the attached copy of the Affidavit of Richard L. Biby in support of PrimeTime 24's May 28, 1998 "Motion for Clarification of "Order Affirming in Part and Reversing in Part Magistrate Judge Johnson's Report and Recommendation," and Request for Hearing Prior to The Entry of Any Preliminary Injunction." The original affidavit will be filed with the Court upon its receipt by counsel.

Respectfully submitted,

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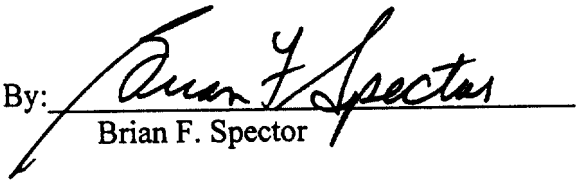
By: 
Brian F. Spector

Attorneys for Defendant PrimeTime 24 Joint Venture

Dated: May 28, 1998

Certificate of Service

I hereby certify that a true and correct copy of the foregoing and the attached affidavit were served May 28, 1998 on the counsel of record listed below.

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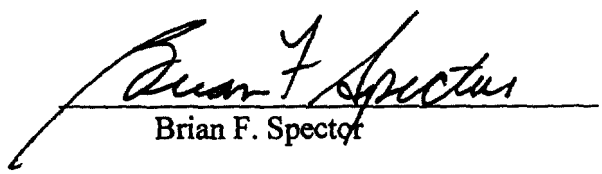

Brian F. Spector

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UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA
SOUTHERN DIVISION

CBS, INC.; FOX BROADCASTING CO.; GROUP W/CBS TELEVISION STATIONS PARTNERS; CBS TELEVISION AFFILIATES ASSOCIATION; POST-NEWSWEEK STATIONS FLORIDA, INC.; KPAX COMMUNICATIONS, INC.; LWWI BROADCASTING, INC.; AND RETLAW ENTERPRISES, INC., Plaintiffs, vs. PRIMETIME 24 JOINT VENTURE, Defendant.	Case No. 96-3650-Civ-Nesbitt Magistrate Judge Johnson (Order of Reference March 18, 1997)

AFFIDAVIT OF RICHARD L. BIBY

I, Richard L. Biby, declare under penalty of perjury that:

1. I am executing and submitting this Affidavit in support of Defendant PrimeTime 24 Joint Venture's Motion for Clarification filed in the above-captioned case.

2. Attached hereto as Exhibit 1 is my initial Expert Report herein. That Report sets forth my expert qualifications and comments upon the shortcomings of the Longley-Rice maps previously prepared by Plaintiffs' expert herein, Jules Cohen.

3. Attached hereto as Exhibit 2 is my supplemental Rebuttal Expert Report herein, including as Exhibits A and B two maps. Those maps illustrate the profound effect, upon the results of a Longley-Rice propagation analysis and map, of changing just three underlying assumptions.

4. As discussed in my two Reports, the Longley-Rice maps utilized by Plaintiffs are profoundly flawed and misleading, for three fundamental reasons.

5. First, the Plaintiffs' maps are based upon an assumption that receiving antennas will be located 30' in the air. But the SHVA language is that a household is ineligible if it is capable of receiving a signal of Grade B intensity with a conventional rooftop antenna. In many areas of the country, houses are predominately one story high. When conventional antennas are placed upon the roofs of such homes, they typically are approximately 20', not 30', in the air. But signal strength generally decreases rapidly as one moves downward from 30' to 20' above ground. Hence, Plaintiffs' maps - which demonstrate predicted signal strength at 30' - systematically overestimate signal strength that could be received by a household.

6. Second, the Plaintiffs' maps do not take into account the improvements to the original Longley-Rice model which I developed to take into account the effects of vegetation and

buildings upon signal propagation. My Reports submitted herein set forth the need for such a correction and describe how I developed an algorithm to provide it. Plaintiffs' maps, however, fail to make such a correction; they therefore are inaccurate.

7. Finally, as described in my Reports, Plaintiffs' maps are fundamentally misleading for a third and most serious reason. The Longley-Rice model is probabilistic. It does not purport to determine with absolute certainty the signal strength that can be received at any particular location. Rather, it predicts a median path loss. The predicted path loss, adjusted by the effective radiated power (ERP), yields the median predicted signal strength. The predicted median signal strength values can be adjusted to account for time and location variability. Thus, one can use the model to predict, for any particular probability, the area within which a specified signal strength (such as the Television Grade B) can be received with that probability or higher. In other words, given a 90% probability (along with other necessary data such as radiated power, frequency, a numerical value representing a Grade B signal strength, and so on), the model can provide calculated signal strength values that can be used to create a map showing the area within which a Grade B signal is likely to be received at 90% of the locations.

The maps Plaintiffs have supplied to the Court are all based upon a 50% locational probability; that is, they illustrate the areas within which there is a 50% probability of receiving a Grade B signal. As described in my reports, however, that is a misleading and inappropriate probability figure to utilize for SHVA purposes in this litigation. The reason is that, by definition, an area calculated using a 50% locational probability shows areas where there is a 50% probability that a signal of Grade B intensity *cannot* be received. At such locations, households would be eligible for PrimeTime 24 service. PrimeTime 24 reaches only approximately 3% of television households. Thus, a fairer map would illustrate locations where there was a 3% probability of receiving a signal of less than Grade B intensity - or a 97% probability of receiving a signal of Grade B intensity or greater.

8. Exhibit B to my rebuttal Report illustrates the dramatic impact of using a 97% probability as a cutoff, rather than 50%, using a 20' antenna height rather than 30', and applying a morphological correction to take vegetation and buildings into account, for one particular television station. The effect is dramatic; many subscribers who would be ineligible under Plaintiffs maps are clearly eligible under these maps.

9. Similar maps could be prepared for all other television markets; they would reveal similar dramatic differences from the maps proffered by Plaintiffs.

It follows that the Court must consider carefully what parameters should be utilized in signal strength predictions that are to be used as the basis for an injunction denying service to households on the basis of their geographical location alone. In particular, the Court should specify that the maps are to be based upon a receiving antenna height of 20', the application or morphological corrections for the effects of buildings and vegetation upon received signal strengths, and the specification of a 97% probability, not a 50% probability.

I declare under penalty of perjury that the foregoing is true and correct.

Richard L. Biby
May 27, 1998

EXPERT REPORT OF RICHARD L. BIBY

ON BEHALF OF PrimeTime 24 JOINT VENTURE

This report sets forth the opinions to which I am prepared to testify in the matter of CBS Inc., et al., Plaintiffs, v. PrimeTime 24 Joint Venture, Defendant, regarding whether PrimeTime 24 is violating the requirements of the Satellite Home Viewer Act.

My name is Richard L. Biby. I received a Master of Electrical Engineering Degree from the University of Illinois ("Illinois") in 1962. During my undergraduate years at Illinois, I was elected to the Electrical Engineering Honorary, Eta Kappa Nu. I am a Registered Professional Engineer in the District of Columbia, where I have testified extensively at the Federal Communications Commission ("FCC") and in the Commonwealth of Virginia, the location of both my residence and my office. I am a past President of the Association of Federal Communications Consulting Engineers ("AFCCE").

In January, 1983, I started the consulting engineering firm of Richard L. Biby, Communications Engineering Services, P.C. ("CES"). I have been involved in the management and operation of the firm on a daily basis since that time. Over the years, CES has provided consulting services to a wide variety of clients, including the

National Association of Broadcasters ("NAB"), the Association for Maximum Service Telecasters ("AMST"), numerous telephone companies, including American Telephone and Telegraph Company ("AT&T"), Bell South, Bell Atlantic, GTE and Contel, applicants for and operators of hundreds of cellular radiotelephone systems, and numerous broadcasters and other users of the radio spectrum. I hold a design patent for a new class of standard broadcast transmitting antenna and have presented papers on that subject and on television spectrum management at annual conventions of the National Association of Broadcasters.

My other experience that is pertinent to this proceeding includes the formation of two companies, DataWorld, Inc. and Communications Data Services, Inc. ("CDS"), which, together, provide the bulk of professional computational and data services to consultants in the radio communications engineering field in this country.

At DataWorld, I designed and implemented the first commercially successful FM and Television Broadcast databases.

At CDS, I designed and implemented the terrain and morphology databases that remain the standard of comparison in their areas. Acting on the availability of necessary resource data (i.e., terrain and morphology), I implemented a computer program, based on the widely-used ITS Irregular

Terrain Model (often called "the Longley-Rice Model"). Recognizing that the basic Longley-Rice Model does not consider the effects of buildings and vegetation ("morphology") upon radio waves, I collected signal strength data at a variety of frequencies and in numerous environments, on which basis I designed and implemented a computational algorithm to adjust the Longley-Rice predictions to the realities of the observed data.

My implementation of the Longley-Rice Model is widely used in both the broadcast and the mobile radio services.

I also completed nationwide spectrum packing studies for the National Association of Broadcasters and for the Association for Maximum Service Telecasters. These studies were designed to maximize availability of FM and High-Definition Television channels, respectively, throughout the United States, subject to an array of definable constraints regarding interference and station distance separation parameters.

I have testified or been deposed in the following matters within the past four years: Contel Cellular of California, Inc./Sierra Arbitration and Telephone and Data Systems, Inc. (9 FCC Record 938 (1994). I have also testified at various times before zoning boards and utilities commissions.

I have agreed to provide my services in this matter at an hourly billing rate of $200.00 plus reimbursement of out-of-pocket expenses such as travel, exhibit preparation, etc.

I have reviewed the March 8, 1997, statement prepared by Jules Cohen, PE ("Mr. Cohen") on behalf of CBS Inc., et al., Plaintiffs. Therein, Mr. Cohen presents a summary overview of "maps and actual signal intensity testing — designed to assess whether, and to what extent, PrimeTime 24 is violating the requirements of the Satellite Home Viewer Act ("SHVA" or "the Act")."

SHVA authorizes satellite carriers, such as PrimeTime 24, to deliver distant network stations to satellite dish owners for private home viewing, but only to "unserved households", which SHVA defines (in relevant part) as being those that cannot receive, through the use of a conventional outdoor rooftop receiving antenna, an over-the-air signal of Grade B intensity (as defined by the Federal Communications Commission) from a primary network station affiliated with that network.

Mr. Cohen's statement presents a number of predicted signal strength maps for stations around the country. The maps depict the individual station Grade A and Grade B signal strength contours as predicted by the FCC's method (as detailed in Section 73.684 of the FCC Rules) and the results of a Longley-Rice analysis of the station's

predicted signal intensity. I believe that Mr. Cohen's Longley-Rice predictions are flawed because, among other things, they do not consider location variability, time variability, or the effects of buildings and vegetation on the received signal strength.

I understand that Mr. Cohen's maps are based on predictions of the median signal strength, at 30 feet in the air, at 50% of the locations 50% of the time.

At the locus of points along the perimeter of the area(s) depicted by the Cohen maps as receiving predicted Grade B or greater signal strength, such a signal would be present at only 50% of the locations and only 50% of the time.

One can determine the areas within which a higher percentage of locations would receive a Grade B or greater signal a higher percentage of the time by increasing the predicted median signal strength.

(Signal strength (intensity) values are expressed as decibels ("dB") relative to some stated reference value, such as one MicroVolt per meter ("dBuV" or, more correctly, "dBuV/m") with the implicit assumption that free-space conditions apply. A decibel value is ten times the (base 10) logarithm of the ratio of a particular value to some stated reference power.)

Within the communications industry, it is generally accepted that both the location variability and the time variability of a broadcast signal have a log normal distribution; that is to say, the variation of signal strength, expressed in dBuV, follows a normal distribution.

Once the standard deviations (or "sigma") of these two normal signal strength distributions are known, it is possible to determine the increase in signal strength that is required in order to predict that some percentage, greater than 50 percent, of all possible receiving locations will receive the stated signal strength or more some percentage of the time greater than 50 percent.

Ms. Anita Longley, co-author of the Longley-Rice model, published a formula for location variability, as a function of terrain roughness and wavelength ("Location Variability Of Transmission Loss—Land Mobile And Broadcast Systems", OT Report 76-87 and reiterated in "Radio Propagation in Urban Areas", OT Report 78-144.) For randomly located receiving antennas in smooth to slightly hilly terrain, the Longley formula is expressed as:

$$O_L = 5.0*\log(freq\_mhz)-1.0 \text{ dB}$$

This formula evaluates to approximately 8.3 dB for low-VHF frequencies (Channels 2-6), 10.5 dB for high-VHF (Channels 7-13), and 13.0 dB at 638 MHz, the mid-point of UHF Channels 14-69.

My reasoning regarding the probability that there will be a Grade B or better signal at roof-top level at any given location is as follows: I have been informed that the number of PrimeTime 24 subscribers in the United States is no more than about three percent (3%) of the television households. Thus, it is appropriate to consider the 97th percentile probability of reception, not the median (50th percentile) case. In order to arrive at the 97th percentile, for example, it is necessary to add approximately 2.2 sigma to the median predicated signal strength value. Doing so ensures that at least 97% of the locations within the area in question will receive the predicted signal strength or greater, which is to say that fewer than 3% will receive a weaker-than-predicted signal.

In order to estimate the difference between 50% and 90% time availability, one can first determine the difference between the field strength predicted by the FCC's 50-50 percentile graphs and the corresponding 50-10 percentile graphs, as set forth in Section 73.699 of the FCC Rules. For typical distances to the Grade B signal strength, as depicted on Cohen's maps (120 km or so), and typical transmitting antenna heights (300 meters or so), the difference between the 50-50 and 50-10 graphs is on the order of 9 to 11 dB, for an average of about 10 dB. Since the time variability, in common with the location

variability, follows a log normal distribution (which is symmetrical about the median), it follows that an upward adjustment of approximately 10 dB is needed to increase the time availability from 50% to 90%. This is an increase of about 1.64 sigma, from which one can determine that sigma is about 6.1 dB. In order to increase the time availability to 97% the factor is about 2.2 sigma, as was also discussed earlier. To ensure 97% time availability, it is necessary to increase the 50 percent estimates by about 13.4 dB.

The approximate required median signal strength values required to ensure that 97-97 percentile location and time availability are set forth in the table, below:

Channels	Grade B (dBuV)	Location dB	Time dB	Required dBuV
2 - 6	47	18.3	13.4	79
7 - 13	56	23.1	13.4	93
14 - 69	64	28.6	13.4	106

The above tabulation illustrates the order of magnitude of the factors that Mr. Cohen should have considered in his use of the Longley-Rice model. In actuality, such adjustments should have been made for each location at which the model made a signal strength prediction.

Moreover, Mr. Cohen should have calculated those signal intensity probabilities at the rooftop height the SHVA specifies, not at 30 feet in the air.

There is yet another problem of a statistical nature in Mr. Cohen's use of the Longley-Rice model. To the best of my knowledge, the performance of this model has never been verified under the operational conditions of residential roof-top reception of television broadcast signals. I can testify, based on my own experience and on reports published by the Institute of Electrical and Electronics Engineers (IEEE Transactions on Vehicular Technology, Vol. 37, No. 1, February 1988 "Coverage Prediction for Mobile Radio Systems Operating in the 800/900 MHz Frequency Range"), that the Longley-Rice model may change the predicted path loss suddenly and severely (at times, by more than twenty (20) dB). Simply stated, no predictive model is perfect, and Mr. Cohen is seriously in error by not examining (and allowing for) modeling errors in his use of the Longley-Rice model.

Further, Mr. Cohen's use of the Longley-Rice model was flawed in that it ignored the effects of buildings and vegetation (morphology) upon the strength of the received signals. Such effects have been recognized since the earliest days of radio communications and have been the subject of extensive study and research. An excellent summary and overview of this subject was published by Ms.

Longley in "Radio Propagation in Urban Areas", OET Report 78-144.

I am prepared to testify, based on both my experience and materials that have been published, that Mr. Cohen erred in not considering the effects of morphology upon predicted signal strengths. The magnitude of signal loss can range from 5.0 dB at low-VHF frequencies in suburban or rural areas with a thin tree cover to more than 30.0 dB at UHF frequencies at locations surrounded by tall trees.

Mr. Cohen's map exhibits totally ignore the question of interference from other television stations. The broadcast television spectrum in this country, particularly VHF Channels 2 through 13, has for many years been interference limited. That is to say, station coverage is limited more by interference from other stations than by a lack of signal strength. This situation has become even more pronounced recently, as a result of the FCC's effort to allocate an additional channel for every television station in the country to allow an orderly transition to a new high-definition ("HDTV") transmission system. Interference from other television stations and reception problems such as multipath ("ghosts") may prevent a household from receiving a usable signal from its local affiliate.

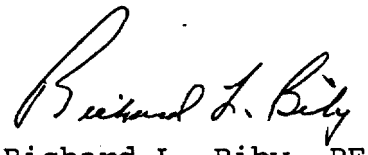
According to Mr. Cohen's maps, many PrimeTime 24 subscribers reside in urban areas, which have significantly

higher noise levels than exist in the rural environments on which the maps are based. It is the worst 3% (or so) receiving locations that must be considered in the case at hand, those being discreet locations at which the magnitude of the signal is less than the value specified by the FCC as representing Grade B service. The FCC specification is based on the assumption that there is no local manmade noise, which is clearly not the case at the difficult receiving locations being considered.

Mr. Cohen has also presented tabulations of field strength measurement data, as collected near the homes of some 100 (one hundred) PrimeTime 24 subscribers in Dade and Broward Counties, Florida. In the process of collecting these data, a mobile run for a distance of 100 feet, along an accessible road near the subscriber's household, was made with the receiving antenna elevated to 30 feet, while recording the station's field intensity on a computer.

The technique of collecting the signal strength data while in motion with an antenna some 30 feet in the air obviously requires that the path traversed be clear of all obstructions such as trees, power lines, and so on. By collecting the data along clear, unobstructed paths, it is virtually assured that the data will not be representative of conditions present at the subscriber's home, which may well be surrounded by trees and other buildings. Had the

signal strength data been collected at rooftop level at the subscriber's household, they would have shown the attenuating effects of "urban clutter", as discussed above.



Richard L. Biby, PE

April 15, 1998

REBUTTAL EXPERT REPORT OF RICHARD L. BIBY

ON BEHALF OF PrimeTime 24 JOINT VENTURE

This supplemental report sets forth the opinions to which I am prepared to testify in rebuttal in the matter of CBS, Inc. et al, Plaintiffs, v. PrimeTime 24 Joint Venture, Defendant, regarding whether PrimeTime 24 is violating the requirements of the Satellite Home Viewer Act.

My qualifications are set forth in my original Expert Report previously filed herein.

Since submitting my original report, I have had the opportunity to review the April 1998 report submitted by Mr. Jules Cohen on behalf of Plaintiffs. As was the case with his prior 1997 statement herein, discussed in my original Report, Mr. Cohen has again provided predicted signal strength maps for a variety of TV stations around the country, using a Longley-Rice methodology. He apparently has continued to use a 30' antenna height in those predictions, and a 50% location probability (that is, he has provided maps showing the areas within which the Grade B signal strength is expected to be present at 50% or more of the locations), and he has continued to neglect morphology (that is, the effect of vegetation and buildings on propagation). As set forth in my original report, these